



Contribution ID: 904

Type: Poster

Resonances production in-and-out of jets in pp collisions at $\sqrt{s} = 13.6$ TeV

Recent experimental results on two-particle correlations within jets with extremely high multiplicities in pp collisions highlight a strong flow-like correlation among constituents. One of the hypotheses to describe this effect suggests the formation of a hot and dense QCD medium within the jet cone, a phenomenon previously thought to occur exclusively in heavy-ion collisions. One notable characteristic of such medium formation is the altered production ratio among different particle species. This is particularly relevant for short-lived, strongly decaying resonances, since their decay products can experience (pseudo-)elastic interactions with the formed hadrons after chemical freeze-out. In turn, this drastically alters the final-state yields of such particles. This contribution investigates this phenomenon by analyzing the yields of K and Φ mesons within high-multiplicity jets in pp collisions at $\sqrt{s} = 13.6$ TeV with LHC Run 3 data collected with ALICE. The measurement utilizes charged-particle jets, and per-jet yields of K and Φ are investigated in and out of such jets. The focus on resonances is expected to provide valuable insights into the intricate dynamics of QCD medium creation and its influence on particle production patterns.

Category

Experiment

Collaboration (if applicable)

ALICE

Authors: LEE, Jimun (Sejong University (KR)); OH, Saehanseul (Sejong University)

Presenter: OH, Saehanseul (Sejong University)

Session Classification: Poster session 1

Track Classification: Jets